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Changes in Country Food Consumption

Report 3-85

Northern Affairs Program

Changes in Country Food Consumption

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Prepared for:

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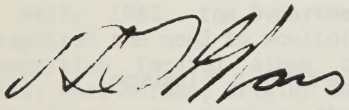
PREFACE

In 1982, the Department of Indian Affairs and Northern Development began its socio-economic impact monitoring program in connection with the Norman Wells Oilfield Expansion and Pipeline Project. This program, carried out under the direction of Professor R.M. Bone of the University of Saskatchewan, is, we believe, the first of its kind. Focussing on four Mackenzie Valley communities in the vicinity of the Norman Wells Project, this study was specially designed to allow monitoring of selected social and economic impacts through field surveys done before, during and after construction. The objective of the first field program, carried out in 1982, was acquisition of the baseline data, while the 1983 and 1984 field surveys captured the situation during the active construction phase. The 1985 fieldwork, done for the first time in all four of the survey communities by native organizations, provided the picture for the immediate post-construction period.

Various aspects of the 1982-84 portion of the project were analysed in the 1984 series of reports. This series discusses certain perspectives from the 1985 work, and, as well, deals with changes in selected factors between 1982 and 1985. In a subsequent, and final, series subjects dealt with will include the overall impacts of the Norman Wells Project and a discussion of the monitoring of socio-economic impacts in Canada.



R.D. Glass
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BACKGROUND TO THE NORMAN WELLS SOCIO-ECONOMIC IMPACT MONITORING PROGRAM

In mid-1979, Esso Resources Canada Ltd. and Interprovincial Pipeline Ltd. initiated discussions with the federal government concerning a major resource development project in the Mackenzie Valley in the Northwest Territories. This project, the Norman Wells Oilfield Expansion and Pipeline Project, was designed to increase production of oil at Norman Wells and carry this increased production through a small diameter pipeline from Norman Wells to Zama, Alberta to connect with the national oil pipeline system. The proposed project was brought to the attention of people in the Mackenzie Valley communities through community information meetings arranged by the companies and designed to inform local residents and businessmen of the potential job and contract opportunities associated with project construction.

During 1980, public hearings were held in northern communities by both the Federal Environmental Assessment and Review Office and by the National Energy Board. These public hearings provided a forum for individuals, native organizations, village councils, government agencies, companies and special interest groups to present their views on the proposed project and the implications of such development for the North and native peoples. The question of involvement of northern residents and businesses in the Norman Wells Project was of major concern during the public hearings, and both the federal and territorial governments indicated that the degree of northern participation in the project would be a key factor in their consideration of whether to approve or reject the Norman Wells Project. On July 30, 1981, the federal government announced its approval, subject to a two-year delay in the commencement of construction to allow government, the companies and northerners time to prepare for their participation in this project.

In early 1982, the Department of Indian Affairs and Northern Development recognized the need to monitor the impacts of the project on the four communities located along the pipeline route. These communities, Norman Wells, Fort Norman, Wrigley and Fort Simpson, were regarded as the ones most likely to receive the bulk of the socio-economic impacts caused by the construction of the Norman Wells Project. All of the socio-economic impacts had potentially positive and negative effects on the communities and local people, and the monitoring program was intended to capture these and evaluate them against the background of pre-construction baseline data on selected indicators.

Carried out by the Department of Geography of the University of Saskatchewan under the direction of Dr. Robert M. Bone, the monitoring program consisted of gathering data from local residents on their household and business characteristics over the course of the construction phase. The framework for this work consisted of three parts: (1) pre-construction phase; (2) construction phase; and (3) a post-construction phase. The field work and data preparation took place from 1982 to 1986. A series of reports based on the data may be obtained from the Department of Indian Affairs and Northern Development.

1. THE IMPORTANCE OF COUNTRY FOOD TO NATIVE PEOPLES

The harvesting of renewable resources is extremely important to native peoples. According to the former Minister of Renewable Resources for the Government of the Northwest Territories, Nellie Cournoyea, this traditional activity is "... at the base of the economy for local people" (Delancey, p. 11).

A key indicator of renewable resources harvesting by natives is their heavy consumption of country food. One measure of this consumption is the percentage of country food in the diet of household members. In this report, the evidence from community surveys indicates that native households tend to have a much higher percentage of country food in their diets than do non-native households. At the same time, there is a wide variation in the use of country food in the diet of native households. The 1982 survey results indicate the existence of such a range in the percentage of country food in native diets. This range of use shows that most native households use approximately equal amounts of country and store foods but that there are some families who either use very little country food in their diet or use it almost exclusively.

There are several reasons for the popularity of country food with Dene, Inuit and Metis families. These reasons include:

1. harvesting country food by natives is a traditional activity with powerful cultural connotations;

2. a preference for wild game and fish by natives over similar store products;

3. the satisfaction and sense of independence derived from being in command of a useful enterprise;

4. the high cost of fish, meat and poultry products in the local stores coupled with low incomes for the average native family;

5. the practice of living off the land when trapping or residing at a bush camp;

6. the central role of country food in the practice of "sharing"; and

7. the pleasure and prestige of hunting big game/mammals.

The close relationship of native peoples in the Mackenzie Valley to the land has always been a basic element of Dene culture. Even after several decades of village living, the harvesting of country food by Dene and Metis families in the four study communities remains the most enduring link to the land and country food continues to be heavily used by most of these Dene and Metis families.

Concerns expressed in the Norman Wells hearings about the potentially disruptive effects of the Norman Wells Project upon traditional activities implied that the harvesting of country food might decline. An expression of these kinds of concerns was contained in the statement of Indian Chiefs from communities in the Mackenzie Valley to the National Energy Board hearing that:

> "... the land had to be protected since it was 'their bank' and ensured their survival" (NEB, p. 115).

The Chiefs based their concerns on the assumption that the Norman Wells Project would (1) involve adult native males in the construction work, thereby reducing the time available for hunting and making the family more dependent on store food; (2) providing adult natives with relatively high paying construction jobs, thereby increasing their incomes and their capacity to buy store food; and (3) exposing native workers to southern food at work camps, thereby changing their food preferences.

Given these concerns, the central issue in this report is, "did the percentage of country food in the diets of native households change during the construction of the Norman Wells Project?"

2. COUNTRY FOOD: DEFINITION AND DISCUSSION

By definition, country food is obtained from the northern wilderness by people who either eat it or share it with others. In conventional thinking, country food production is a non-commercial activity even though many writers have demonstrated its economic importance to native families in terms of a substitute for equivalent store food (Berger, 1977 and 1985, Beveridge and Schindelka, Hamelin, Hobart, and Usher, 1978 and 1985). According to Berger (1977, p. 31), this food harvest is based heavily upon big game (56%), followed by fish (27%), fur bearing animals (8%) and birds (5%). Since the nutritional value of these northern foods is considered to be high, their value to

the physical well-being of native peoples is recognized (Schaefer and others, 1985, p. 28). Equally important, the very act of hunting and sharing of country food represents a powerful "social bonding" unique to native peoples. In this way, one of their cultural traditions is maintained which in turn supports the notion of a continuity of an autonomous way of life for native peoples (Asch, 1984, p. 21).

In the not too distant past, wild game provided not only food but also clothing, equipment, shelter and tools for the land-based Metis and Dene. Today, these items can be purchased from local stores while housing can be rented in settlements from the NWT Housing Corporation . Even though many store foods are extensively used by native families, country food still remains an important source of meat and fish. Some measure of its central role in the diet of native northerners is provided by Berger in the 1970s and by Usher in the early 1980s (Berger, pp. 14-34 and Usher, 1985, pp. 5-6). These studies suggest that most of the meat and virtually all of the fish consumed by native families comes from domestic production.

Since the sedentarization of native peoples, new ways of harvesting country food have emerged. These adaptations take advantage of new technology, ranging from snowmobiles and aircraft to freezers. In all cases, these innovations mean less time is spent on the land to secure the necessary food supplies

for the urban native residents.

Both the federal and territorial governments recognize the importance of country food to native peoples and they provide various support programs, including subsidies for the purchase of a snowmobile by a hunter/trapper, the building of community freezers and the organizing of caribou hunts by bands. The territorial government's outpost camp program is another example of public support for native use of the land and the harvesting of country food. The GNWT community harvesters assistance program provides funds to native communities to assist local resource harvesters. This program includes funding for outpost camps, community caribou hunts and trapper's assistance.

The actual harvesting system falls into four categories:

1. families living at bush camps; near their settlement or at outpost camps;
2. hunting/fishing trips to specific areas or lakes for a short period of time by a small group of adult males;
3. trapping by one or more males for several weeks or longer; or
4. organized caribou hunts by bands.

In all harvesting systems, there is also the sharing of this wild food with friends and relatives. In this way, the distribution of beaver, caribou, fish, moose and other types of country food spreads through the Dene/Metis communities.

Sometimes this sharing involves a form of exchange with the hunter. The exchange could involve gas for his snowmobile, credit at the store for grub stake or simply cash.

Two country food harvesting/sharing systems are examined in more detail. These systems are seasonal bush camps and institutionalized caribou hunting.

About six Fort Norman families follow the practice of moving to a bush camp at Willow Lake each spring to trap beaver and muskrat. These "on-the-land" families rely heavily on country food while at the bush camp. When these families return to Fort Norman, they also bring a variety of wild game for their friends and relatives. This practice of a spring hunt at Willow Lake was observed during the 1984 survey at Fort Norman and its long tradition is well documented by Janes (1983). Such an annual movement is common to other native communities, including Fort Simpson and Wrigley.

A new approach to country food harvesting is community organized hunts. Sponsored by both the GNWT and the federal government, native communities in the Mackenzie Valley have organized hunting parties for barren ground caribou. The purpose of these hunts is to obtain sufficient game to feed band members living in the community. This approach has proven popular with the bands at Fort Simpson and Wrigley. Here, each band or local

Hunters and Trappers Association undertakes an organized hunt. In the case of Fort Simpson, the allocated caribou hunting area is near Gordon Lake which is northeast of Yellowknife. Because Gordon Lake is accessible by road in the winter, the butchered caribou are transported by truck to Fort Simpson. This game is stored in community freezers and is dispersed by the band to local residents throughout the year.

The emergence of organized hunts and the resulting sharing of caribou by all members of the band represents the institutionalization of the share ethic of the extended family. This adaptation ensures that a major form of country food, caribou, is harvested by the Dene and shared by all Dene members of the community.

3. THE COUNTRY FOOD QUESTION IN THE HOUSEHOLD QUESTIONNAIRE

The responses to one question in the household questionnaire provide the data on country food consumption. In the three household surveys (1982, 1984 and 1985), the question, "How much of your household food is country food" was asked. The identical question and the seven response categories as asked in the household questionnaires are reproduced in appendix A.

The response rate to this question was excellent. During the two surveys which involved all four centers, the percentage of participating households which answered the question on

country food was 92.9% in 1982 and 99.8% in 1985.

The responses were recorded into seven "user" categories. For example, the user category "none or almost none" means that the respondent indicated that they ate either no wild meat, fish, birds or berries over the past 12 months or very little such wild food over the last 12 months. This descriptive label was quantified as a percentage of the total food consumed. In this user category, the actual percentages of country food in the diet of household members is "0 to 5%". A list of the seven user groups, their descriptive labels and percentages of country food estimated by the head of the household to have been consumed by members of that household over the last 12 months is provided in the list below.

	User Group Label	Percentage
1.	none or almost	(0 - 5%)
2.	very little	(6 - 15%)
3.	some	(16 - 39%)
4.	about half	(40 - 60%)
5.	quite a lot	(61 - 75%)
6.	most	(76 - 94%)
7.	all or nearly all	(95 - 100%)

4. THE OVERALL PATTERN OF RESPONSES

In June 1982, the first survey of all residents in the four

communities took place. The overall response from 318 heads of households indicated that for the majority of the residents (52.5%), country food comprises an important role in their eating behavior, i.e., those using at least 40% country food in their meals.

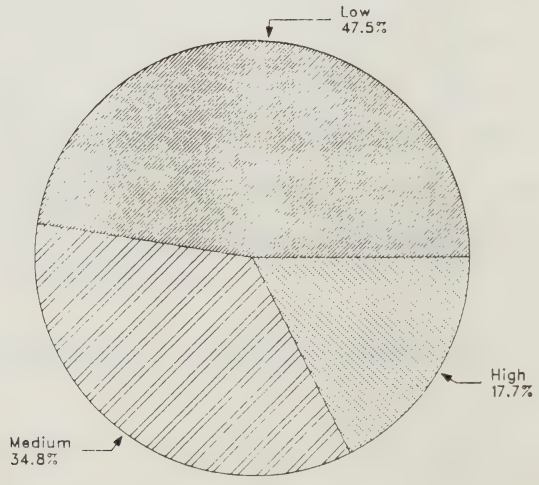
While the percentage of responses by each of the seven user groups is indicated in Tables 1 to 6, a series of graphs presents a simplified version of the same data. The graphs display only three user groups: "low", "medium" and "high". These three groups represent a combination of the original seven categories shown in the tables. The attraction of the graphically presented data is (1) ease of interpreting the broad shifts in food consumption and (2) eliminates minor response variations from 1982 to 1985 .

The three new classes of country food consumers are defined as "low" consumers of country food eating 15% or less country food in their diets; "medium" consumers of country food being the group 16% to 60%; and "high" consumers consisting of those eating over 60% country food in their diet . A listing of the original seven user groups and the three new ones is shown below.

User Class	User Group	Percentage
	none or almost	(0 - 5%)
Low	very little	(6 - 15%)
	some	(16 - 39%)
Medium	about half	(40 - 60%)
	quite a lot	(61 - 75%)
	most	(76 - 94%)
High	all or nearly all	(95 - 100%)

These three consumer classes are illustrated in Figure 1.

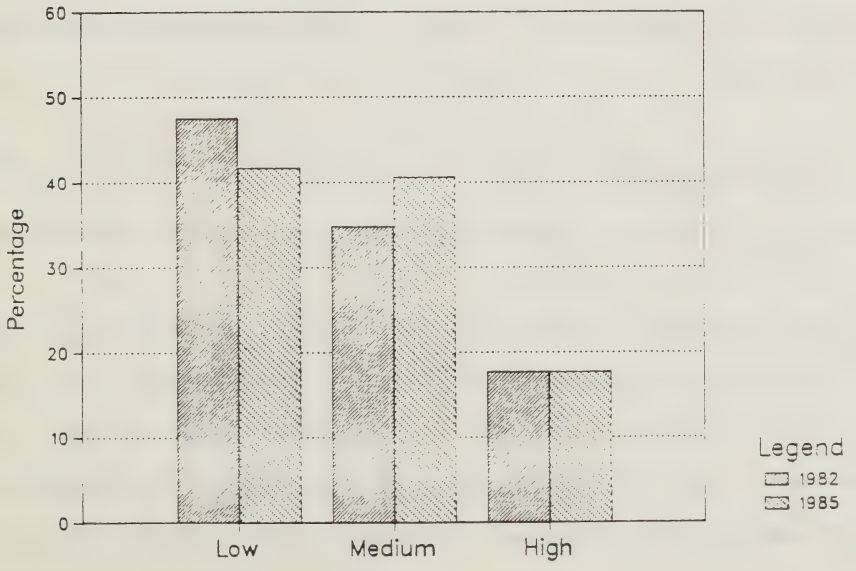
Figure 1
Country Food in Diet, 1982



In 1982, responses from all the households in the study area revealed that the "low" consumers formed 47.5% of all households; the "medium" consumers 34.8%; and the "high" consumers 17.7% .

Three years later, the responses from the surveyed residents of the four communities indicated that the percentage of "low" users had declined to 41.7% while "medium" users had risen to 40.6%. The percentage of "high" consumers of country food remained constant over the three year period at 27.7% (Figure 2). The generally "upward" shift in country food usage from during the construction period of the Norman Wells Project can be observed in Figure 2.

Figure 2
Country Food In Diet, 1982 and 1985



A more detailed statistical account of these changes which took place from 1982 to 1985 is presented in Table 1. In this table, the percentage of households falling into each country food user group is indicated.

TABLE 1
HOUSEHOLDS BY CONSUMPTION OF COUNTRY FOOD, 1982/85

User Group (%)	Percent 1982 (n = 318)	Percent 1985 (n = 423)	Difference (%)
0 - 5	28.0	21.8	- 6.2
6 - 15	19.5	19.9	0.4
16 - 39	20.6	23.6	3.0
40 - 60	14.2	17.0	2.8
61 - 75	8.8	9.5	0.7
76 - 94	6.9	2.8	- 4.1
95 -100	2.0	5.4	3.4
TOTAL	100.0	100.0	

Changes by each user group are recorded in the last column entitled "difference". These differences provide two types of information:

1. the percentage of change by each user group from 1982 to 1985; and
2. the size of change between user groups reveals the magnitude of shift.

An example of such a shift is seen in Table 1 where the smallest user group of country food has seen a decline in its size from 28% in 1982 to 21.8% in 1985. This loss of 6.2% of its relative size has been redistributed into the other user groups, all of which use more country food in their diet. By scanning the

"difference" column, it can been seen that the three adjacent user groups increased in size equal to the decrease in the first user group. This shifting represents an increase in the use of country food by those user groups. The reader should also note that by adding up the "difference" column, the resulting sum will always be zero.

4.1 Analysis of Country Food by Households

The aggregated responses from all households in the four studied communities are found in Table 1. In analyzing the difference column of Table 1, the principal changes from 1982 to 1985 occurred at the two "ends", namely with households having a very low consumption of country food and those having a very high consumption. The largest change in eating habits saw a substantial decrease (-6.2%) in the percentage of households belonging to the group having "none or virtually none" in their diets. Presumably, these households shifted from a low user group to a higher one. While there was some movement between the three highest user groups, there was no net change from 1982 to 1985. These findings indicate a general upward shift in the percentage of country food in the diet of all residents residing in the four communities and they are confirmed in Figure 2.

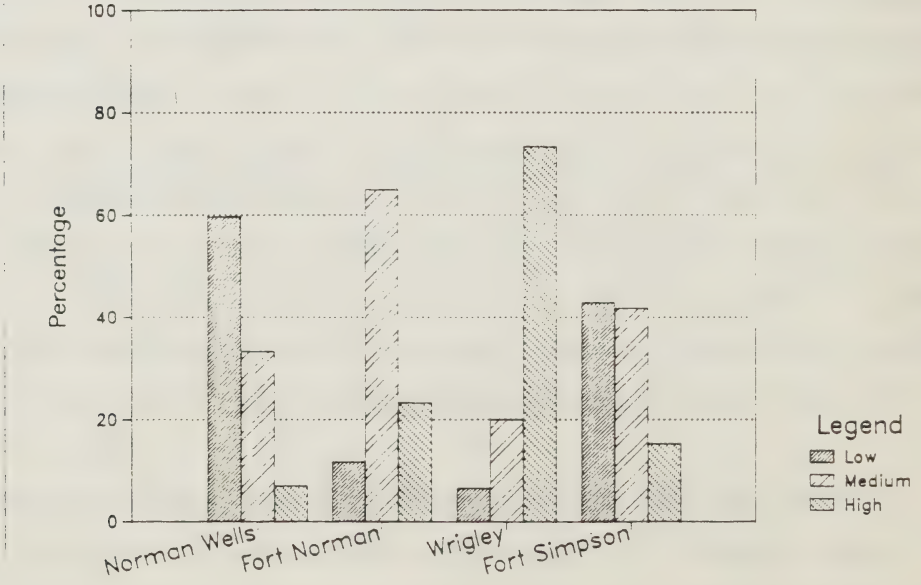
Since the populations of each community differ in a number of ways, changes in consumption patterns are examined by

community and by native households to confirm or reject this preliminary finding. In this way, a more precise analysis of shifts in eating habits of residents in the four communities may be detected.

5. COUNTRY FOOD CONSUMPTION BY COMMUNITIES

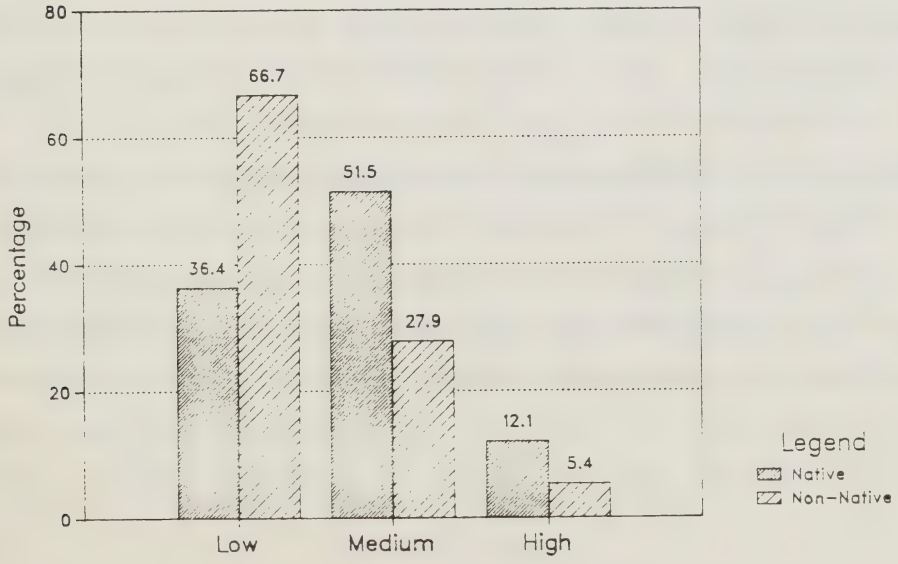
The four communities reveal strikingly different country food consumption patterns. Norman Wells residents use the least amount of country food in their diets followed by Fort Simpson, Fort Norman and Wrigley. A graphic display of this general pattern of country food consumption is illustrated in Figure 3.

Figure 3
Country Food in Diet by Communities, 1985



While the explanation for community variations is related to socio-economic characteristics of the residents of each center, the dominant factor is a cultural/demographic one - native families tend to eat much more wild game and fish than do non-native families. Therefore, the higher the percentage of native peoples in a community, the greater should be the use of country food in the diet of all the residents. This statement is supported by population figures which reveal that Norman Wells has the smallest percentage of native peoples (under 20%) while Fort Simpson has about 70% native, Fort Norman about 90% and Wrigley 95%. The native/non-native difference in use of country food is even visible at Norman Wells where most of the native peoples are involved in the wage economy (see Figure 4).

Figure 4
Country Food In Diet At Norman Wells, 1985



5.1 Norman Wells

Norman Wells is a southern style community. Its population of nearly 700 consists mainly of non-natives, many of whom have only recently arrived in the Northwest Territories. Its native population consists mainly of Metis, most of whom are involved in the local wage economy.

During the construction phase of the Norman Wells Project, the population of Norman Wells grew rapidly and its infrastructure expanded. The life-style of this oil town is more similar to regional centers such as Inuvik and Hay River than to Wrigley, Fort Norman or even Fort Simpson.

There are three key differences between Norman Wells and the other three centers in terms of in terms of accessibility to store foods. The main difference is a cultural one - native peoples tend to be very heavy users of country foods while non-native peoples do not use much country food in their meals. Of the four communities, Norman Wells has the highest proportion of non-native peoples at over 80%. The second difference is based on the much higher household incomes at Norman Wells which allows its residents to spend more money on food purchases and on eating in restaurants (Bone, pp. 18-19). The third difference has to do with the high ratio of restaurants/fast food outlets to the size of the population. At Norman Wells, with three

restaurants and one fast food place as well as several camp cafeterias, people tend to eat out a great deal. Another difference is that few people are harvesting country food at Norman Wells and therefore access to wild game is much more limited than in the other centers.

The degree to which country food is being harvested can be approximated by the percentage of people in the community who hold general hunting licenses which entitles holders to trap fur-bearing animals and to hunt game birds and animals. In our 1985 survey data, the percentage of households with someone having a General Hunting License showed that Norman Wells at 18%, Fort Norman at 70%, Wrigley at 87% and Fort Simpson 54%. These figures correspond well with the GNWT records on the number of General Hunting Licenses by community (Brown, p. 11). Since a General Hunting License indicates that a person and the members of his/her household can legally hunt, it is likely a good indicator of country food harvesting.

A measure of the relatively small use of country food in the diet by Norman Wells residents is revealed in Figure 3 and in Table 2. In Figure 3, Norman Wells has the largest proportion of households falling into the "low" user group of country food and its has the smallest proportion of households in the "high" user group.

TABLE 2

COUNTRY FOOD CONSUMPTION, NORMAN WELLS, 1982 AND 1985

User Group	1982 (n = 74)	1985 (n =144)	Difference
0 - 5	43.2	42.4	- 0.8
6 - 15	21.6	17.4	- 4.1
16 - 39	21.6	21.5	- 0.1
40 - 60	8.1	11.8	3.7
61 - 75	2.7	2.1	- 0.6
76 - 94	2.7	2.8	0.1
95 -100	0.0	2.1	2.1
Total	100.0	100.0	

5.1.1 Analysis of Country Food at Norman Wells, 1982 and 1985

The consumption of country food has increased at Norman Wells. This finding is surprising considering the strong impact of the construction work on the community. The explanation lies in the fact that a much larger number of native families participated in the 1985 survey than in the 1982 one (6 households to 33). A comparison of the two groups' patterns of food consumption confirms this explanation. For instance, those households consuming 15% or less country food consist of one-third native households and two-thirds non-native households. This pattern of country food consumption by native and non-native households is more fully demonstrated in Figure 4. This figure clearly shows the heavier use of country food by native familes than non-native ones at Norman Wells. Therefore, the increase in

country food consumption is not related to the Norman Wells Project but to the increased proportion of native peoples participating in the 1985 survey.

At Norman Wells, few native adults are heavily involved in hunting or trapping. For example, the GNWT figures reveal that for 1982/83 and 1983/84, there were no active trappers recorded at Norman Wells (Brown, p. 19). For this reason, it is assumed that much of their food supply comes from friends and relatives in nearby communities, particularly Fort Norman. Since Norman Wells is a regional center, travel by residents of surrounding communities to Norman Wells is common and this travel provides an opportunity to either share or exchange meat and fish. Several such sharing/exchanging events were observed taking place at Norman Wells between natives in the wage economy and friends/relatives following a more traditional life style.

5.2 Fort Norman

Fort Norman is a small native community. With a population of approximately 300, local residents can purchase store food only at the Bay. There are no retail stores or restaurants and the Great Bear Lodge only serves meals to its customers. Fort Norman is only a short distance from Norman Wells and many people do their non-food shopping at the Wells.

The construction of the Norman Wells pipeline provided new economic opportunties for local businessmen and workers. Describing Fort Norman's economy in 1981, Resources Management Consultants indicated that the most important activities were hunting, fishing and trapping (p. 9). This report goes on to state that 27 natives were employed. During the course of the pipeline construction, these numbers more than doubled (Bates, 1984, p. 11) and personal incomes rose sharply (Bone, 1984, p. 19). While these construction jobs disappeared after the pipeline was completed in the spring of 1985, the short-term increase in personal incomes allowed purchases of a variety of goods and equipment. This change in purchasing patterns seems to have extended to store foods, thereby either lessening the need for country food or increasing the variety of foods consumed.

TABLE 3

COUNTRY FOOD CONSUMPTION AT FORT NORMAN, 1982 AND 1985

User Group	1982 (n = 46)	1985 (n = 60)	Difference
0 - 5	10.9	5.0	- 5.9
6 - 15	2.2	6.7	4.5
16 - 39	17.4	20.0	2.6
40 - 60	21.7	45.0	23.3
61 - 75	23.9	21.7	- 2.2
76 - 94	21.7	1.7	-20.0
95 -100	2.2	0.0	- 2.2
Total	100.0	100.0	

5.2.1 Analysis of Country Food at Fort Norman, 1982 and 1985

At Fort Norman, the consumption of country food is much higher than that for Norman Wells. The native population at Fort Norman formed 90% of all surveyed households in 1982 and 87% in 1985. Therefore, the figures in Table 3 are dominated by native households.

The major dietary change from 1982 to 1985 sees a significant drop (nearly 25%) in the use of country food by the "heavy" users. At the same time, there has been a minor reduction (about 6%) of those households reporting no or virtually no country food in their diets. The major area of gain is the middle consumer group (+23.3%). From these findings, it appears that there was a drop in country food consumption at Fort Norman.

5.3 Wrigley

Wrigley is the smallest and most isolated of the four communities. It also has the highest proportion of native residents. Wrigley is considered a "traditional" community, meaning that the trapping/hunting life style is commonly practised.

Country food consumption is highest at Wrigley. This small

traditional community has a Co-Op store which carries a limited stock of food stuffs. The small size of the retail food store in Wrigley is partly a reflection of the limited number of customers in the settlement and partly a result of the heavy reliance on wild game rather than store meat.

TABLE 4

COUNTRY FOOD CONSUMPTION AT WRIGLEY, 1982 AND 1985

User Group	1982 (n = 21)	1985 (n = 30)	Difference
0 - 5	0.0	3.3	3.3
6 - 15	28.6	3.3	-25.3
16 - 39	9.5	13.3	3.8
40 - 60	28.6	6.7	-21.9
61 - 75	19.0	46.7	27.7
76 - 94	0.0	6.7	6.7
95 -100	14.3	20.0	5.7
Total	100.0	100.0	

5.3.1 Analysis of Country Food at Wrigley, 1982 and 1985

During the Norman Wells Project, the prevalence of country food in the diet actually increased in the "heavy" users categories and decreased in the "medium" and light" user categories (Table 4). This shift in consumption patterns indicates an overall increase in the use of country food by residents at Wrigley.

While some residents from Wrigley worked on the pipeline and others were employed by subcontractors, this wage employment does

not appear to have hindered the overall harvesting of country food. Since this work extended over a relatively short period of time, it may not have interfered with the securing of game and fish. Other possibilities are that the more active trappers and hunters continued to harvest country food while others opted for wage employment; or that the temporary wage employment generated capital which was invested into hunting equipment, thereby increasing the productivity of the hunters. In similar circumstances, Hobart (pp. 214-216) has found that harvesting of game and fur did not decrease when Inuit residents became involved in industrial employment and, in fact, may have increased. Certainly the figures in Table 4 indicate an increase in the proportion of country food in their diet from 1982 to 1985. The largest increase (approximately 40%) occurred in the three heaviest user groups of country food. The general finding is that the percentage of country food in the diet of residents of Wrigley actually increased from 1982 to 1985.

5.4 Fort Simpson

The village of Fort Simpson, the largest community with a population of about 1000, is linked to southern Canada by two highways, one leading to Yellowknife, Hay River and Edmonton and the other to Fort Liard and Fort Nelson. As a regional administrative center for the immediate area, Fort Simpson has a large public sector including federal, territorial and regional

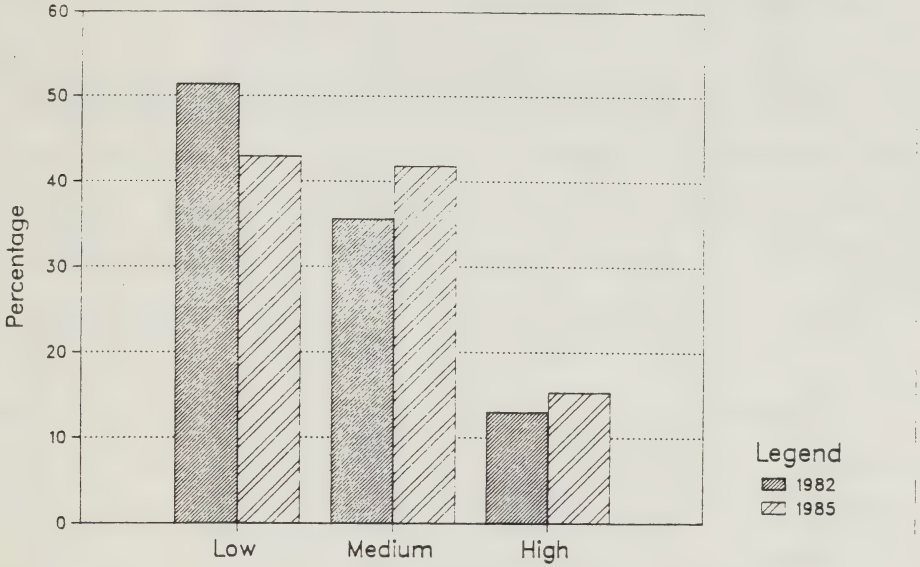
agencies. It is also the business and retail center for the surrounding settlements. Amoung its commercial firms, Fort Simpson has two retail food stores, two restaurants and a fast food outlet.

With its population consisting of about 70% native and 30% non-native residents, Fort Simpson exhibits more of a balance between Dene cultural practices and southern ones than is found in the other three centers. For this reason, there is a more even distribution of responses per user group of country food use than the other three communities (Table 5).

TABLE 5
COUNTRY FOOD CONSUMPTION AT FORT SIMPSON, 1982 AND 1985

User Group	1982 (n = 177)	1985 (n = 189)	Difference
0 - 5	29.4	14.3	-15.1
6 - 15	22.0	28.6	6.6
16 - 39	22.6	28.0	5.4
40 - 60	13.0	13.8	0.8
61 - 75	6.2	5.3	- 0.9
76 - 94	5.6	2.6	- 3.0
95 -100	1.1	7.4	6.3
Total	100.0	100.0	

Figure 5
Country Food In Diet, Fort Simpson 1985



5.4.1 Analysis of Country Food at Fort Simpson, 1982 and 1985

The use of country food in the diet of Fort Simpson residents has increased from 1982 to 1985. Similar to the overall pattern, there are two major shifts in eating behavior:

1. there is a significant decrease in the percentage of those who eat no or virtually no country food

2. there is an increase in the percentage of those who are the heaviest country food consumers.

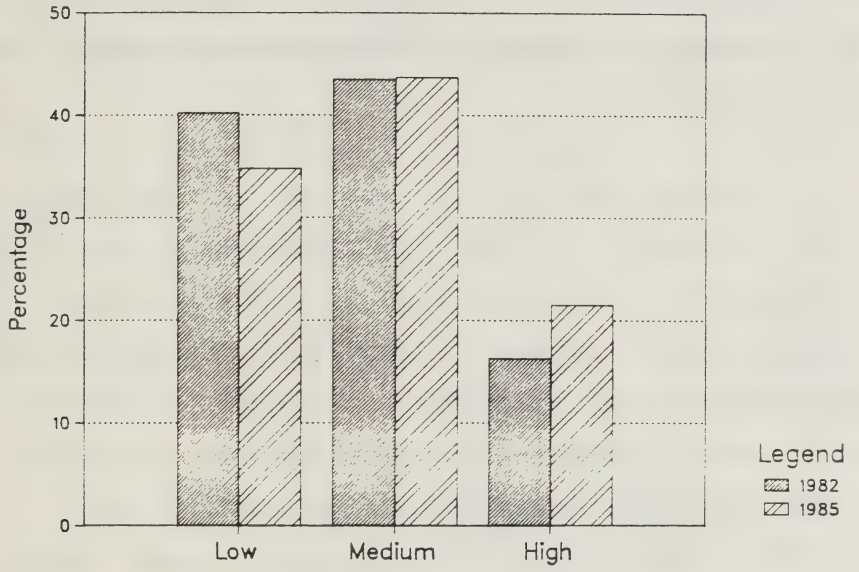
These two shifts are shown in detail in Table 5 and in a more simplified form in Figure 5.

In Figure 5, the "low" consumer group shows a decline over the construction period while both the "medium" and "high" consumer groups show an increase. This finding indicates that there was an overall increase in the percentage of country food in the diet of residents of Fort Simpson during this time period.

In examining the native/non-native composition of the two surveyed populations at Fort Simpson, there is a larger percentage of native households included in the 1985 survey than in the 1982 one, suggesting that part of the increase may be due to this fact. For this reason, a cross-tabulation of country food responses by descent of the head of the household was run. The results of this analysis should indicate if the increase in country food in 1985 is due to the increase in the proportion of native respondents. The results of this cross-tabulation are shown in Figure 6. In Figure 6, a comparison of native households consumption of country food for 1982 and 1985 indicates the same general shift as shown in Figure 5 for all households. The major changes for the native households occurred in the "low" consumer group where there was a decline and in the "high" consumer group where there was an increase. The "medium"

consumer group was very stable over the four year period (Figure 6).

Figure 6
Country Food In Diet of Natives at Fort Simpson, 1982 and 1985



6. NATIVE POPULATION

For centuries, the Dene have lived off the land. Big game animals, including caribou and moose made up the bulk of their diet. Fish, fur bearing animals, hares and berries were also important. A few store foods were also used, namely flour, lard, sugar and tea.

The modern style food retail store replaced the fur trading store about the time native peoples settled into settlements. In some cases, the Bay trading post evolved into a northern version of a general store by providing a wide variety of food stuffs and other goods. In other cases, new stores were opened. Many of these stores were either co-operatives or locally owned. The net result has been to increase the availability of store foods to native consumers.

In discussions with store managers, all have noted that the variety and quantity of food stuffs purchased by native customers is increasing. The growing popularity of store foods is thought to be related to its regular availability, the ease of preparing a meal based on some store foods, the variety of store foods, and the influence of greater exposure to southern life styles.

Some northern health officials have expressed concern that native customers buy too much confectioneries and soft drinks and not enough fresh fruits and vegetables (Schaefer, Wright, Picard, Schurman and Steckle, 1985). The Bay has responded to these concerns by establishing the Nutrition Upgrading Program in 1978. This program provides information to assist residents in native communities to choose economical and nutritious foods.

While there is no doubt that country food continues to occupy an important place in native eating patterns, store foods

are being widely used. For the majority of native households, wild game and fish provide the bulk of native food while canned goods, snack foods, fresh fruits, bakery products, frozen meat and the basic staples of tea, flour, lard and sugar supplement their diet.

TABLE 6
COUNTRY FOOD CONSUMPTION BY NATIVE HOUSEHOLDS

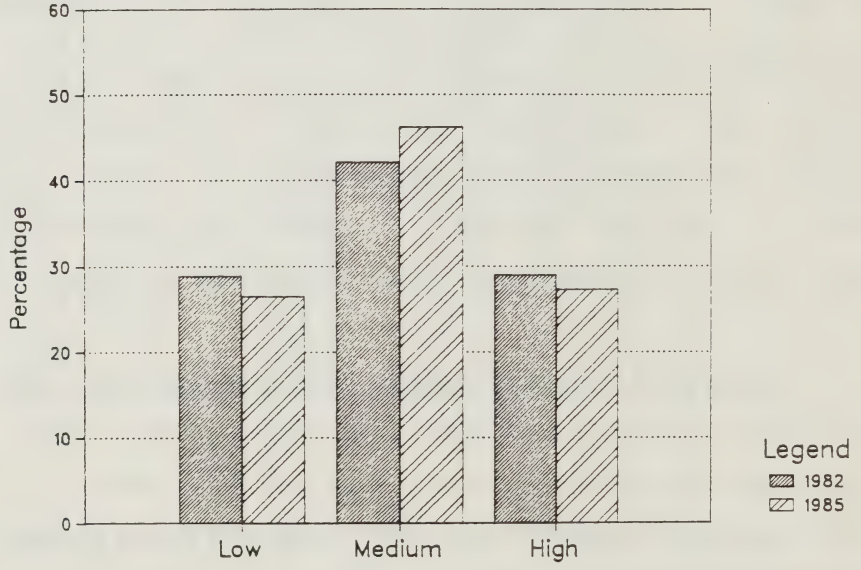
User Group	1982 (n = 159)	1985 (n = 249)	Difference
0 - 5	11.3	6.0	- 5.3
6 - 15	17.6	20.5	2.9
16 - 39	22.0	23.7	1.7
40 - 60	20.1	22.5	2.4
61 - 75	12.6	14.9	2.3
76 - 94	12.6	3.9	- 9.0
95 -100	3.8	8.8	5.0
Total	100.0	100.0	

6.1 Analysis of Country Food By Native Households, 1982 and 1985

During the construction of the Norman Wells Project, the proportion of country food in the diet of natives in the four communities has increased. In terms of the three classes of users shown in Figure 7, the main shift occurred amoung medium users of country food. This group increased its proportion of households from 42.1% in 1982 to 46.2% in 1985, a gain of 4.1%. The next major change saw a drop in the low user group. Here, the decline was from 28.9% in 1982 to 26.5% in 1985, a loss of

2.4%. The high user group underwent the least change, a modest drop of 1.7%. The net result of these shifts in the three user classes indicates that there was an increase in the use of country food in the diet of native households from 1982 to 1985.

Figure 7
Country Food in Diet of Native Households



These findings refute the fear that the Norman Wells Project, by significantly increasing the wage economy in these communities, would result in a decline in traditional harvesting and sharing practices. The explanation for the well-being of country food harvesting and sharing must include the following

factors:

1. the strength of the native link to the land for harvesting purposes;

2. the importance of sharing country food amoung native families;

3. the innovative role of the bands in developing caribou hunts for the purpose of distributing food to its members throughout the year;

4. the link between increased wages and investment into hunting equipment and vehicles;

5. the importance of public support for both the caribou hunts and the building of community freezers;

6. the limiting of pipeline impacts on the communities by the creating of work camps outside of the communities; and

7. the short period of time (roughly two to three months) for pipeline construction each year and thus the limited effect of these activities upon the three native communities.

7. CONCLUSIONS

In this report, we presented the responses to the question on country food use over a four year period and offered an interpretation. While this subject of country food is a complex one and so very central to native culture, the weight of the responses, particularly those from native households, indicates the continued heavy use of wild meat, fish and other native foods by the residents in the four communities.

There have been some shifts in the pattern of consumption by the seven user groups. Generally, the shift has been for more

residents to consume "some" country food rather than very little or a great deal. This movement from the low and high ranges to middle ones was very prevalent in all four communities. Perhaps the residents of these four communities have adopted a new blend of country food and store foods?

The use of country food by residents of the four communities showed some variation by community and by native/non-native households. For instance, residents of small communities tended to make greater use of country food than did residents of larger communities. Even so, the strongest and most persistent relationship was between native households and high consumption of country food, indicating that the harvesting of renewable resources continues to form a integral part of the native economy. This finding in itself was not surprising but the continued high level of consumption throughout the construction period is an important one, suggesting that this aspect of native society is sufficiently viable to withstand the pressures of a wage economy generated by Norman Wells type construction projects.

Our conclusion should not be interpreted as implying that the spread of Canadian industrial society into the Northwest Territories is not having an affect upon native peoples and their societies. Quite the contrary. Our point is that the construction of the Norman Wells Project impacted the three

native communities to a much lesser degree than the hamlet of Norman Wells. Had the situation been reversed, the impact upon country food harvesting and native eating habits may have been quite different.

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9. APPENDIX A

4. How much of your household food is 'country food'?

none or almost none	(0 - 5%)	☐
very little	(6 - 15%)	☐
some	(16 - 39%)	☐
about half	(40 - 60%)	☐
quite a lot	(61 - 75%)	☐
most	(76 - 94%)	☐
all or nearly all	(95 - 100%)	☐